

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



16 DEC 2004

(43) International Publication Date  
31 December 2003 (31.12.2003)

PCT

(10) International Publication Number  
WO 2004/001021 A1

- (51) International Patent Classification<sup>7</sup>: C12N 1/00, 1/12, 1/14, 1/16, 1/20 (74) Agents: WRIGHT, Simon, Mark et al.; J.A. Kemp & Co, 14 South Square, Gray's Inn, London WC1R 5JJ (GB).
- (21) International Application Number: PCT/EP2003/006553 (81) Designated States (*national*): AE, AG, AI, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 20 June 2003 (20.06.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
02254262.5 19 June 2002 (19.06.2002) EP  
02258713.3 18 December 2002 (18.12.2002) EP
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
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- Published:  
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*



WO 2004/001021 A1

(54) Title: PASTEURISATION PROCESS FOR MICROBIAL CELLS AND MICROBIAL OIL

(57) **Abstract:** An improved pasteurisation protocol for pasteurising microbial cells is disclosed. The protocol has three stages, a first heating stage, a second plateau stage at which the cells are held at a (maximum and) constant temperature, and a third cooling stage. Both the heating and the cooling stages are rapid, with the temperature of the cells passing through 40 to 80 °C in no more than 30 minutes in the heating stage. The heating rate is at least 0.5 °C/minute and during cooling is at least -0.5 °C/minute. The plateau maximum temperature is from 70 to 85 °C. By plotting the pasteurisation protocol on a time (t, minutes) versus temperature (T, °C) graph, one obtains a trapezium having an area less than 13,000 °C minute. Not only does this result in a smaller energy input (and so a reduction in costs), but a better quality (and less oxidised) oil results having a peroxide value (POV) of less than 1.5 and an anisidine value (AnV) of less than 1.0.